

Conceptual Plan Alternatives

MILPITAS MIDTOWN
SPECIFIC PLAN



Prepared for
City of Milpitas



July 6, 2000

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Midtown Milpitas Specific Plan Conceptual Plan Alternatives July 6, 2000

Introduction

This memorandum documents a range of alternatives drafted as a part of the planning process for the 1,093-acre Midtown Milpitas planning area. These alternatives have been drafted in response to ideas expressed through the community outreach process, market conditions and opportunities and constraints associated with the physical environment.

The alternatives described in this memorandum are a first step in expressing ideas for the Midtown area. Each land use alternative is structured around a common circulation framework of transit stations, Class I¹ bicycle and pedestrian ways, and well-landscaped streets. The land use alternatives also have similar elements. New development within the Main Street corridor is assumed as a mixture of residential and small-scale retail development. Each alternative achieves a minimum of 2,000 new residential units in the southern portion of the planning area, to create market support for a new grocery store as desired by existing residents in the area. The varying land use program yields that are estimated in each alternative are based on different assumptions about the density and mix of land uses that might occur on vacant and underutilized sites in the planning area.

Goals for Midtown

Based on a series of community and stakeholder meetings held during the months of January and February, the following goals were drafted to guide the Midtown Milpitas Plan. These goals were considered and approved by the Planning Commission on March 22, and adopted on April 4 by the Milpitas City Council.

Land Use

- Encourage a compatible mixture of residential, retail, office, service-oriented commercial and industrial uses within Midtown Milpitas.
- Provide for a significant component of new housing within the area in order to: improve the vitality of the Midtown area; address local and regional housing needs; and reinforce the use of transit.
- Promote an intensity of development in Midtown that is appropriate to its central location.
- Provide for a land use mix that supports major transit facilities.

¹ A Class I bikeway is an off-street path; a Class II bike facility is a striped lane within a street; and a Class III facility is a shared roadway which is signed as a bike route.

Community Design

- Create an attractive district that is uniquely Milpitas.
- Establish a pedestrian-oriented mixed-use district that is focused along Main Street.
- Provide urban open spaces (i.e., plazas, squares) that serve multiple purposes and can be used for special events.
- Improve the character of streets within the area.

Circulation

- Improve the viability of the pedestrian, bicycle and transit systems.
- Balance the need for through movement with livability and pedestrian-orientation.

Implementation

- Identify 'catalyst' development sites.
- Identify financial resources to create a plan that is economically self-sufficient.
- Establish the regulatory mechanisms necessary to implement the Specific Plan.

Summary of Issues and Opportunities

Land Use

- Midtown Milpitas is located within a prosperous and growing residential and job center. An estimated 30%, or approximately 250 acres of land, is comprised of undeveloped or underutilized properties.
- While there are some vacant sites which are easily developable, others are constrained by various factors, such as small ownership patterns (along Main Street), and difficult access (Elmwood surplus property).
- Given the tremendous job creation that has occurred in the Bay Area over the past several years, housing in the region is in short supply. ABAG has estimated that Milpitas' share of the regional housing need is estimated to be a total of 4,348 housing units for the period of January 1999 to June 2006. This equates to a average yearly need of 580 units.²

² ABAG Regional Housing Needs Determination (RHND), June 2000.

Market Opportunities

- As described above, the market for housing, particularly higher density products, is very strong. In addition, housing in Midtown would create market support for retail services.
- With respect to retail, the Midtown area is located within a very competitive shopping environment—new retail commercial development opportunities are limited, and must follow new residential development.
- With respect to a grocery store, the southern portion of the Midtown area will need to add at least 2,000 dwelling units in order to meet a minimum population threshold for a grocery store.³
- The market for lodging facilities is strong. Due to the limited amount of large conference and meeting facilities in the area, Milpitas could attract a full-service hotel with conference and meeting facilities.

Community Design

- Milpitas as a whole lacks an identifiable center, a place that is the ‘heart’ of the community. The Main Street area in the vicinity of Serra includes the original crossroads of Milpitas and is developed at a scale that is appropriate to pedestrian movement. The organization of buildings and parking areas, however, discourages pedestrian movement.
- Main Street, Abel Street and Great Mall Parkway are not attractive for pedestrian use as they carry vast volumes of through traffic and lack amenities such as a consistent canopy of trees, pedestrian-scale light fixtures and benches. It appears that these streets have adequate right of way to accommodate a greatly improved pedestrian environment.
- There is a lack of improved public open spaces within Midtown. A system of appropriately scaled urban open spaces (i.e., plazas and squares) and greenways would add greatly to the livability and quality of the area.
- Midtown Milpitas contains several “focal-points” (i.e., future transit stations) and gateways to the community. These areas can be enhanced to improve the image and identity of the area.

³ Based on an estimated existing population of 7,350 persons (the Pines, Summerfield, MonteVista and Parc Metropolitan) an additional 6,700 persons (approximately 2000 housing units) is needed within an approximate 1.5 mile radius.

Circulation

- The Midtown area is located in an area which experiences significant peak hour congestion. Due to poor levels of service on nearby freeways, Main and Abel Streets are used as a bypass during congested periods.
- With respect to the local street network, the Midtown area is bisected by two railroad lines, which limits east-west corridors and causes circuitous travel patterns.
- Looking to the future, Midtown Milpitas is assuming a role as an emerging transit hub. The Tasman East LRT extension is underway, and will traverse Midtown along Great Mall Parkway. Two stations will be provided in the area, one at Main Street and one at Montague Expressway.
- In addition, a heavy commuter rail extension (i.e., Caltrain type service) is funded for the eastern Union Pacific line. One station would be in the Midtown area near Montague Expressway. Over the long term, BART is also being studied for this same corridor. Under preliminary studies, there could be two stations in the area, one at Montague and one in the vicinity of North Main and Calaveras.

Conceptual Planning Alternatives

Circulation Framework

The circulation system is the same for each of the planning alternatives, and is diagrammed in Figure 1.

Vehicular Circulation. The existing system of streets would be used in their current configuration, but improved to create an improved walking and bicycling environment. Figure 2 illustrates the conceptual streetscape improvements to Main, Abel and Great Mall Parkway.

Abel Street is proposed to be developed as a “green” boulevard with a median and accommodation for bicycles and pedestrians. The City Trails Master Plan calls for a Class I bicycle and pedestrian trail along the west-side in association with Penetencia Creek. Due to constraints associated with the creek channel, street landscaping and bike lanes may be an approach that would be easier to implement in the short term. (See Figure 2A and 2B). Where possible, a landscaped median with left turn pockets is recommended to provide amenity and diminish the perceived width of this street. Continuous street tree planting at the curb is also recommended. Ways to best accommodate bicycle and pedestrian circulation, along with improving the streetscape are being studied in consideration of existing rights-of-way.

Main Street is proposed as a two-way street with parallel parking on both sides for a two to three block section. Parallel parking is recommended rather than diagonal parking due to the amount of traffic that currently travels along Main Street. The Main Street right of way is not large enough to accommodate both on-street parking and a bike lane, therefore, where on-street parking is recommended the bike lane would be relocated to Abel Street. Main Street could be a signed bike route in this area. Alternative parallel routes include the Class I or Class II facility along Abel Street and along the Union Pacific right of way, as designated in the City’s Trails Master Plan.

Great Mall Parkway is recommended to be improved with street tree landscaping along the sidewalk curb edge and within the transit median. This street currently includes bike lanes from the I-880 overcrossing to Great Mall Drive where the street narrows and the street becomes a bike route. Improvement plans for Great Mall Parkway call for the extension of the bike lane further south to Capitol Avenue in San Jose.

Sinnott Lane. In order for new land to be developed east of the former Southern Pacific railroad, an additional rail crossing would be required. An additional grade crossing at Sinnott Lane could be pursued; however it is not likely that the PUC would approve this crossing in the near term unless an existing crossing was

removed in return. It does not appear that there is enough space for a grade-separated crossing. In addition, Sinnott would need to be wider if it were to be extended over the tracks. Given all of these constraints, the new crossing would be a long-term proposal.

Carlo Street. It is assumed that Carlo Street is closed. There are two options: Closing Carlo between the ‘loop’ and Abel Street, which would leave access to Calaveras via the loop; or closing Carlo between Main and Abel Streets and abandoning the ‘loop’ as a connection to Calaveras.

Bicycle and Pedestrian System. Each land use plan is organized around a system of Class I bicycle and pedestrian trails along Penetencia Creek, and the Hetch-Hetchy right of way. A new bicycle and pedestrian connection from the Penetencia Creek Trail to the Montague transit stations is recommended in association with new development. There is a bike lane along Great Mall Parkway approximately to Centre Point Drive. If right of way permits, a bike lane should be continued down Great Mall Parkway and Capitol Avenue. A bicycle/pedestrian bridge linking Curtis Avenue and residential/employment areas to the east is recommended to provide an additional east-west crossing in the Midtown area.

Transit System. The plan assumes that transit stations at Great Mall Parkway and Montague along the Tasman East LRT line and the future commuter rail station at Montague will ultimately be developed. The Alternatives recognize a potential additional station at Calaveras and North Main, or North of Abel, if BART is ultimately extended along the UP corridor. It is also assumed that bus services will be centered at the Main/Great Mall LRT station.

Overview of the Land Use Alternatives

Each land use alternative focuses on potential new land uses on the vacant or underutilized sites. Taking into consideration the market opportunities and the consistent messages expressed by the public, all three of the alternatives are largely consistent with one another. All of the plans promote a residential and retail mixed-use district along Main Street, and create residential ‘transit villages’ around the Great Mall and Montague transit stations. Differences in the plans revolve around the land uses proposed on several ‘swing sites’ such as a portion of the Serra Center, the Elmwood Surplus land, an undeveloped ‘outparcel’ at the Great Mall, parcels along South Main Street, and the wrecking yards along Trade Zone Boulevard. The following table summarizes the differences in the three alternatives by land use, and compares the alternatives to a “Baseline Plan” which is the existing General Plan. Throughout this report, comparisons are made to a Baseline Plan which is a projection of new development consistent with the existing General Plan.

Table 1: Land Use Comparison of Midtown Alternatives

Site	Alternative 1	Alternative 2	Alternative 3	Baseline
Site #1	Office	Office	Office	General Comm.
Site #2	Residential	Residential	Residential	Residential
Site #3	Office	Office	Office	General Comm.
Site #4	Residential/Retail	Residential/Retail	Residential/Retail	General Comm.
Site #5	Residential	Office	Retail	General Comm.
Site #6	Retail	Retail/Office	Office	General Comm.
Site #7	Residential/Retail	Residential/Retail	Office	General Comm.
Site #8	Residential	Residential	Residential	Residential
Site #9	Residential/Hwy. Retail	Hwy. Retail	Residential/Hwy. Retail	Hwy. Service/Parks
Site #10	Residential	Residential	Residential	Industrial
Site #11	Residential	Office	Retail	General Comm.
Site #12	Residential/Retail	Residential/Retail	Residential/Retail	General Comm.
Site #13	Residential	Residential	Residential	General Comm.
Site #14	Residential	Residential	Residential	Hwy. Service
Site #15	Residential	R&D/Lt. Industrial	R&D/Lt. Industrial	Hwy. Service
Site #16	Residential/Retail	Residential/Retail	Residential/Retail	Residential/Industrial
Site #17	Lt. Industrial/Transit	Lt. Industrial/Transit	Lt. Industrial/Transit	Industrial

The estimated development program yield for the three conceptual alternatives are summarized in Table 2, along with an estimated yield based on redevelopment of the same sites under current General Plan and zoning regulations. This estimate addresses only anticipated new construction and redevelopment of identified key sites. Existing development is not included at this point. In addition, the development program yields reflected in the table represent a maximum estimate of new development. Actual development would be less than this projection:

Table 2: Comparison of Midtown Alternatives

Alternative	Residential (units)	Retail/Dining (gsf)	Office (gsf)	Hwy. Retail (gsf)	R&D (gsf)	Public Parks and Open Space (ac)
Concept 1	5,580	61,000	20,000	200,000	150,000	44
Concept 2	4,850	65,000	315,000	300,000	310,000	38
Concept 3	3,680	262,000	70,000	200,000	50,000	38
Baseline ⁴	665	844,450	0	329,000	700,000	32

The amount of public parks and open space provided for each alternative is summarized below:

Table 3: Comparison of Public Parks and Open Space

Alternative	Residential (units)	New Residents ⁵	Public Parks and Open Space (ac)	Public Parks per 1,000 population (ac)
Concept 1	5,580	15,010	44	2.9
Concept 2	4,850	13,046	38	2.9
Concept 3	3,680	9,899	38	4.2
Baseline	665	1,788	32	18.8

Description of the Midtown Alternatives

Alternative 1

The first land use plan alternative emphasizes residential development in the Midtown area. Residential densities generally range from 20 units per acre to 60 units per acre with higher density units focused around the transit stations at the southern portion of the planning area. These densities are gross (internal circulation and private open space have not been subtracted from the acreage). In general, at the lower end of the range, housing types include townhouse or rowhouse types and the higher end of the range would involve four to five stories of apartments or condominiums over parking.

In this alternative, residential/retail mixed use development is assumed at infill sites at Serra Way and North Main Street, and residential development at several infill sites along Main Street, South Main and along Great Mall Parkway. Residential development is also assumed on the rail lands, on a portion of the Elmwood property, and on the remaining ‘out parcel’ at the Great Mall (adjacent to the future transit station). In total, this

⁴ An estimated Baseline development yield was estimated by applying land uses and densities allowed by the General Plan to key vacant and underutilized sites in Midtown.

⁵ Household size is assumed at 2.69 persons per unit. The City of Milpitas determines average household size on the basis on dwelling unit type using information from the California Department of Finance.

alternative would yield an estimated 5,580 units. With this residential program, some new retail development along Main Street and a grocery store (approximately 32,000 square feet) is assumed in the vicinity of South Main Street and Great Mall Parkway. This alternative assumes a combination of residential development and highway oriented and/or 'big box' retail on surplus property around the Elmwood site. It should be noted that if a store like Costco were to be developed on the Elmwood property, there would not be a sufficient market support for a grocery store in the southern portion of the area.

Approximately 44 acres of public parks and open space are provided in this alternative, including 22.5 acres along Penetencia Creek and the Hetch-Hetchy Right of Way, and public parks and open spaces within the larger development sites adding another 22 acres. All three of the alternatives rely on creek trails for a portion of the public parks and open space requirement. This is not traditionally how city parkland is provided in association with new residential development in Milpitas; however, the trails will provide attractive links throughout the City. This issue is discussed further in the Alternatives Review section.

A summary of all three alternatives is presented in Tables 1, 2 and 3 on page 8. A detailed land use program for each alternative is included in the Appendix.

Alternative 2

The second alternative assumes more office and commercial development than the first alternative. In addition, more land is redeveloped in this alternative. In Alternative 2, smaller sites north of Calaveras on Main Street are developed with new housing, small-scale office (i.e., medical-dental offices, travel agencies, real estate, etc.), and a public use, such as a historical museum or performing arts theater. The sites around Serra and Main Street would be developed in a mixture of residential and retail. This alternative assumes that the eastern portion of the Serra Center is developed with new office uses. Like the first alternative, it is assumed that much of the rail yards are redeveloped with residential uses. In this alternative, it is assumed that all of the Elmwood surplus property is redeveloped with highway oriented and/or 'big box' retail commercial. The Great Mall parcel at the transit station is assumed to be redeveloped with an office. In this scenario, all of the east-side of South Main Street below Great Mall Parkway is assumed to be redeveloped with a combination of housing and R&D uses. Similar to Alternative 1, this alternative assumes primarily residential development on infill sites in the southern portion of the planning area and a grocery store in the vicinity of South Main and Great Mall Parkway.

Overall, this alternative would yield approximately 4,850 residential units, 65,000 square feet of retail, and additional retail/dining along Main Street, 315,000 square feet of office, 300,000 square feet of Highway Oriented Retail, and 160,000 square feet of R&D space. The overall public open space totals 38.3 acres, including 22.5 acres in creek trails. This equates to a ratio of 2.9 acres of public parks/open space per 1,000 population.

Alternative 3

The third alternative carries out current development trends in the area. In the northern portion of the planning area, much less development is assumed within the rail yard area (approximately 15 acres which could be accessed off of Curtis Avenue). Like Alternative 1, highway oriented retail and residential are assumed on the Elmwood surplus land. Small-scale office (such as dental offices, travel agencies, etc.) is assumed on some redevelopment sites on Main Street, and it is assumed that a portion of the Serra Center is redeveloped with retail uses. As Alternatives 1 and 2, residential/retail mixed use development is assumed at Serra and Main Street.

In the southern portion of the planning area, new residential development is assumed in the area of South Main and Great Mall Drive, and around the future transit station at Montague, however, fewer sites are assumed to be redeveloped in this alternative. General retail development is assumed at the Great Mall site in place of residential or office as assumed in the previous alternatives.

This alternative would yield approximately 3,680 residential units in the planning area as a whole, with approximately 800 in the northern portion of the planning area and 2,800 in the southern portion of the area. The overall public open space totals 38.8 acres, including 22.5 acres in creek trails and an additional 16.3 acres of public parks within new developments. This equates to a ratio of 4.2 acres of public open space per 1,000 population.

Alternatives Review

Compatibility with Midtown Vision and Goals

Each Alternative has been structured to implement the vision and goals adopted for Midtown Milpitas. Land uses vary by alternative for four major sites: (1) a portion of the Serra Center; (2) the surplus land around the Elmwood Center; (3) the undeveloped parcel at the Great Mall transit station; and (4) along South Main Street. Overall, land uses on these sites vary the mix of residential and commercial uses. Any of these alternatives would be consistent with the goals of the Midtown Plan.

The following summarizes the major elements of the alternatives:

Main Street Corridor: The overwhelming desire voiced through the community meetings was to create a traditional pedestrian-oriented “Main Street” in this area. Each of the alternatives provides for a mixed-use district focused along the Main Street corridor. The strategy for this area is to infuse new housing into the area in a mixed-use configuration in order to support retail businesses along the street. A public gathering place, such as a town green or plaza should be created at the symbolic “heart” of the community at Serra Way and Main Street. This

intersection is recognized as the historic crossroads of Milpitas and should be developed as a significant focal point for both Midtown and Milpitas as a whole.

Montague and Great Mall Transit Stations: The southern portion of the planning area has the potential to become an important transit-oriented district. Each of the alternatives focuses a mixture of land uses, predominantly housing, around the transit stations. Linkages to the public transit stations as well as the larger open space system are provided through new development areas.

Circulation: Circulation concepts for the planning area include building a system of Class I bicycle and pedestrian paths through Midtown, as described in the City's Trails Master Plan, and improving the image and walkability of the major streets through landscape and sidewalk improvements. The pattern of streets and blocks in the pedestrian focal areas (Main Street, around the transit stations), should be scaled and new development oriented to the pedestrian.

Focal Points and Gateways: Midtown Milpitas contains several "focal points" of community-wide importance as well as gateways to the community. The design and development of these areas will create an image for Milpitas as a whole. The primary focal points in Midtown include the intersection of Serra and Main Street, and the four future transit stations, including the Great Mall and Montague LRT Stations, and the commuter rail station at Montague and in the future potential BART station in the vicinity of North Main Street. Midtown Milpitas' location in the south-east portion of the City, between two major freeways and traversed by regional arterials, presents an important opportunity to develop attractive gateways to the City. Gateways into the planning area include entries along the street, transit stations and key visible parcels. Street gateways are located on South Main Street, Great Mall Parkway, and Calaveras. Key parcels that are highly visible near entries to the city and the planning area include the Abel property on Great Mall Parkway, the truck yards near the Montague transit stations, the Elmwood surplus properties and the Serra Center.

Land Use and Regulatory Considerations

Consistency with the General Plan. Each of the Midtown Alternatives provides for a broader mixture of land uses than is currently contemplated by the Milpitas General Plan. Much of the Midtown Area is currently designated for 'General Commercial' and 'Manufacturing and Warehousing' land uses. Each of the proposed alternatives would require amendments to the General Plan to allow a greater range of allowable land uses. Overall, in the Main Street area, this would generally involve allowing higher density residential development in addition to, or in conjunction with commercial uses. It is anticipated that new development would phase in incrementally, and the area would retain a mixture of old and new uses. In the southern portion of the planning area, the plan would provide for a change in land use from service commercial and light industrial to high density housing and supporting retail. Similar to the Main Street area, it is

anticipated that new development would be phased incrementally as property owners wish to redevelop their properties.

The City's Multifamily High Density residential designation allows for development up to 20 units per gross acre. Densities up to 40 units per acre are allowed for proposals designed as Planning Unit Developments (PUDs) provided that the following criteria are met:

- Sewer and water service is sufficient to accommodate the proposal as well as other developments permitted by the General Plan. Any improvements to the sewer or water system that would be required to accommodate any such higher density proposals would be made conditions of project approvals.
- Cumulative traffic, from the increased density and other existing or future projects, must not cause any street intersection to operate below Level of Service (LOS) E; and
- The design of such higher density projects will not have adverse shadow, view obstruction or loss of privacy impacts that are not mitigated to acceptable levels.

Higher density residential development (averaging 30 to 60 units per gross acre) is focused in the southern portion of the study area where LRT stations will be located. There are several intersections in that area that are currently operating at poor levels of service (i.e., LOS of E or F during the AM or PM peak hour), including several intersections along Montague Expressway. The traffic impacts for these housing densities will be analyzed during the environmental review for the Specific Plan.

Land Use Compatibility. Each of the alternatives introduces new land uses, such as residential, into areas that are predominantly retail commercial or light industrial in nature. Residential uses are sensitive to externalities associated with commercial and industrial operations, such as noise, light, glare and presence of hazardous materials. Within Midtown, noise associated with the railroad and major roadways as well as the presence of hazardous materials are all issues that would be expected to require mitigation in new residential development. These conditions would need to be investigated on a case-by-case basis and appropriate implementation included within new developments. In the Midtown Area, the MonteVista and Parc Metropolitan residential projects have been able to adapt to a non-residential setting. The Crossings at Montague is an example of a project that will be surrounded by a predominantly industrial area. All of these projects are important "pioneer" projects that have begun to build a critical mass of new residential development in Midtown. New residential development as proposed by the Midtown Alternatives can build upon and reinforce these pioneering projects, and begin to create a new district within the City.

Park Dedication Requirements

The City has a standard of 5 acres of land per 1,000 population. Land dedication or in-lieu fees are required equivalent to the 5 acre /1,000 resident standard, but credit is allowed for up to 2 acres/1,000 residents for private open space provided in accordance with the criteria specified in the City's Subdivision Regulations. The provision of parks in the Midtown area varies in a couple of ways from the approach typically used in the City. First, each of the Midtown alternatives relies on the use of the creek trail system for a portion of the public parkland. The creek-trail system has the potential to be a significant recreational amenity in Midtown. It should be noted however, that the creek trail system would be provided on land that is not owned by the City of Milpitas. Agreements would need to be negotiated with the agencies that own these properties (i.e., the Santa Clara Valley Flood Control District and the San Francisco Water Department) to use these lands for public recreational purposes. Secondly, each of the alternatives provides approximately 3.0 acres of public open space per 1,000 population through the improved trails and small park sites with the possibility that 2 acres per 1,000 being provided as private open space. However, it should be noted that it would be difficult to achieve a ratio of 5-acres per 1,000 population in this area and this issue will be studied further.

Circulation Considerations

The daily and the A.M. and P.M. peak-hour auto trip generation projections for each alternative is summarized in Table 4 (an expanded trip generation table appears in the Appendix at the end of this memo). As shown in Table 4, each of the Midtown alternatives generates less than one-half the number of trips as the Baseline condition. This is due to the fact that retail and employment uses generate trips at much higher levels than residential development.

Table 4: Trip Generation Summary

Alternative	North Area Trips	South Area Trips	Total Trips
Alternative 1			
Daily	20,441	21,114	41,555
A.M. Peak	1,164	1,528	2,692
P.M. Peak	1,970	2,076	4,046
Alternative 2			
Daily	24,710	22,339	47,049
A.M. Peak	1,380	1,744	3,124
P.M. Peak	2,463	2,288	4,750
Alternative 3			
Daily	20,281	29,735	50,016
A.M. Peak	739	1,445	2,184
P.M. Peak	1,920	2,842	4,762
Baseline			
Daily			110,244
A.M. Peak			2,551
P.M. Peak			10,387

The transportation effects of the three alternatives were estimated by calculating the number of vehicle trips generated by different types of land uses on the key sites for daily, and A.M. and P.M. peak hours. Vehicle trip generation characteristics were based on the Trip Generation Manual (published by the Institute of Transportation Engineers (ITE)). Adjustments to standard trip generation estimates were adjusted to reflect the presence of transit, the use of Eco Passes by employment uses, and linked trips due to mixed-use development. Trip generation reductions were based on guidelines provided by the VTA.

Trip reductions are summarized in Table 5. In general, trip generation rates for residential were reduced by 15%, retail trips rates were reduced by 15%, office rates were reduced by 18%, highway-oriented retail by 15% and research and development uses by 18%. No subtractions were taken for existing uses.

Table 5: Summary of Trip Reductions

Trip Reductions	Residential	Retail	Office	Hwy Retail	Parks/OS	R&D
LRT/BART	9%	3%	3%	3%	0%	3%
Eco Pass	0%	2%	5%	2%	0%	5%
Mixed Use	6%	10%	10%	10%	0%	10%
Total	15%	15%	18%	15%	0%	18%

Overall, Alternative 1, which has the greatest amount of residential development, results in the lowest overall trip generation, a total of 41,555 daily trips. Alternative 2, which has greater office and commercial development results in a total of 47,049 daily trips. Alternative 3, which has the greatest amount of new retail development, has the highest generation of the three alternatives at 50,016 daily trips, approximately 8,461 (or 20%) more trips than Alternative 1. Similarly, in looking at the p.m. peak hour, Alternatives 2 and 3 generate 704 and 716 more trips, respectively, than Alternative 1. All three of the alternatives generate significantly lower numbers of trips than redevelopment of the area under the existing General Plan.

Infrastructure Considerations

An estimate of utility demand was generated based on the land use programs of the three alternatives. The results are summarized below by utility system:

Storm Drain System. Since the amount of stormwater runoff is directly related to the land use, all three Alternatives are expected to generate less runoff than the ‘buildout’ conditions as projected in the Draft City Storm Drainage Master Plan dated April 1999. The effects to the storm drain system of the three alternatives were analyzed based on the amount of stormwater runoff that would be associated with each alternative. Given that the runoff coefficient for residential development and parks is lower than that for commercial or light industrial development, Alternative 3 generates the least amount of runoff and Alternative 2 the highest amount of runoff. It should be noted that portions of the Midtown Area are within FEMA designated Flood Zones reflecting flood waters overtopping banks of adjacent creeks during the 100-year event. New development will be required to mitigate this constraint.

Table 6: Estimated Stormwater Runoff by Area
Weighted Runoff Coefficient x Area (cA—in acres)

		Runoff (cfs)		
Area	Baseline	Alternative 1	Alternative 2	Alternative 3
North Area	136	84	98	63
South Area	83	52	67	56
Grand Total	219	136	165	119

Sanitary Sewer System. It is not anticipated that the increase in demand for the sanitary sewer system is significant enough to cause modifications to the City’s allocation at the treatment plant. The sanitary sewer system for the three alternatives was analyzed using peaking factors (as specified in the City Sanitary Sewer Master Plan dated June 1994) based on land use for each site. The wastewater generation factors were taken from the City design criteria dated October 1999. The commercial sites generate significantly lower flows in comparison to the residential sites. Alternative 2, having higher levels of

commercial and light industrial uses, generates the least amount of flow, while Alternative 1 generates the greatest amount due to higher levels of residential uses. Since all three alternatives propose residential development in lieu of existing commercial development, sanitary sewer system flows are expected to be somewhat greater under each alternative than the buildout conditions as projected in the Master Plan. Based on the Master Plan, the City's allocation is 12.5 million gallons per day (mgd) average dry weather flow. The projected five-day dry weather flow at buildout is 11.6 mgd. In addition, the City Sanitary Sewer Master Plan is currently being updated.

Table 7: Sanitary Sewer Peak Flows

Area	Peak Flow (mgd)			
	Baseline	Alternative 1	Alternative 2	Alternative 3
North Area-Commercial		0.04	0.08	0.06
North Area –Residential		0.72	0.51	0.34
North Area -Subtotal	0.69	0.76	0.59	0.40
South Area -Commercial		0.01	0.02	0.03
South Area - Residential		0.68	0.60	0.52
South Area-Subtotal	0.48	0.69	0.62	0.55
Grand Total	1.17	1.15	1.21	0.95

Water System. Because all three alternatives propose some residential development in lieu of commercial and industrial land uses as designated in the Baseline, domestic water usage (excluding fireflow demand) are projected to be greater than the Baseline conditions. Therefore, domestic water demands may result in additional infrastructure improvements beyond that specified in the Milpitas Water Master Plan. However, when fireflow demand is included, the overall water demand will be less as commercial sites have higher fireflow demands than residential sites.

The water system for the three alternatives was analyzed for domestic water usage only for the average daily flows. The peaking factors and fireflow demand were not used in the analysis, but will be included when a preferred alternative is identified. In general, for the commercial sites, the domestic water demand is less than the demand on residential sites (excluding fireflow demand). Therefore, Alternative 1 (with the greatest amount of residential development) generates the greatest amount of water demand while Alternative 3 (with the greatest amount of commercial development) generates the least demand. It should be noted that the City has a policy of serving residential development with water from the San Francisco Public Utilities Commission. Due to increased water demand associated with new housing, it may not be possible to serve new residential development in Midtown with water from the SFPUC. Rather new development would be supplied by Santa Clara Valley Water District water.

**Table 8: Water Demand
Average Daily Flows (Domestic Only)**

Area	Daily Flow (mgd)			
	Baseline	Alternative 1	Alternative 2	Alternative 3
North Area—Commercial	0.10			
North Area—Residential	0.67			
North Area Subtotal	0.51	0.77	0.61	0.36
South Area—Commercial	0.10			
South Area Residential	0.64			
South Area Subtotal	0.31	0.74	0.71	0.65
Grand Total	0.82	1.51	1.32	1.01

Implementation Considerations

Market Orientation, Pricing and Absorption. The three alternatives provide for new residential, office, retail and R&D uses in the Midtown Milpitas area. Based on the market study completed for this plan (EDAW, April 2000), all of these uses can be developed rapidly and profitably. Therefore, all of the alternatives are comparable from a market perspective.

Residential. Each of the alternatives provides for an infusion of new residential development into the planning area in combination with commercial uses. For new residential uses it is recommended that each alternative provide for a mix of owner and renter occupied units, emphasizing owner occupied units in order to provide a stable community in the area. It is anticipated that pricing for owner occupied units will range from the high \$200,000's to the high \$400,000s, and lease rates generally beginning at \$1000 per month for one- bedroom to \$2000 for two- and three- bedroom units. Given the strong market for housing, it is estimated that this area could absorb up to 600 units per year under current conditions.

Retail. Due to the location of Midtown in a highly competitive retail environment, retail is the use which will be most sensitive to land costs. Neighborhood commercial (i.e., small shops and restaurants) will be most feasible after new residential development, and new uses will be sensitive to location. Retail should be developed in small increments. Overall, the area could absorb no more than 15,000 to 20,000 square feet per year (a typical 'main street' scale retail shop is 3,000 square feet).

Highway Oriented Retail. Highway oriented retail is dependent on finding users. Overall, the retail program in each alternative could be absorbed in 1 year.

Office. Office absorption rates are estimated to be approximately 50,000 to 100,000 square feet per year. Given this market, the office program in Alternative 2 could be developed in two to three years.

R&D. Similarly, R&D uses could be absorbed in increments of 50,000 to 100,000 square feet per year. The program in Alternatives 2 and 3 could be absorbed in 1 to 2 years.

Phasing. Considering only market conditions, it is feasible to project that the residential portions of this plan could be built-out in eight to ten years, and commercial elements could be phased in one to five years. In reality, however, the exact phasing of development will be determined by a combination of market conditions, the availability of needed infrastructure, the interest of property owners in redeveloping properties, and/or the ability of developers to assemble property.

Overall, parcels can develop in any order. In general, it is assumed that new development can begin immediately on several sites. It is anticipated that the undeveloped properties, such as the Great Mall 'outparcel', the Abel property, perhaps a portion of the County surplus land, as well as certain properties that are underutilized, would be developed in the next five years. There have been expressions of interest on several underutilized sites, or assemblies of sites, in the area.

The early phase projects will be key in setting the overall tone for the area and will act as catalyst sites for further redevelopment in the planning area. Other sites, which support ongoing businesses, may not redevelop for 10 to 15 years. To the extent possible, these sites should be developed incrementally, perhaps through joint-ventures (i.e., developer-owner relationships). In general these types of relationships take time to build—therefore, development requiring assembly of parcels would phase in later.

Ability to Finance Improvements. In general, the plan can be largely implemented through private development. Inclusion of the Midtown Area within a redevelopment area is being studied. Some public support (i.e., assistance in site assembly) may be desirable for new development in some locations. For key sites, redevelopment tools such as Owner Participation Agreements (OPA's) may be a vehicle to assemble parcels. This mechanism encourages property owners to participate in the redevelopment of their property.

Other than development related costs, there may be costs associated with facilities which benefit the City as a whole, such as a public use (i.e., a performing arts theater), a bridge overcrossing of the UP railroad, trails, streetscape improvements, etc. Such extraordinary costs that would benefit a larger district, or the City as a whole, may be financed through mechanisms such as tax increment financing, development impact fees, for some improvements, or regional tax measure funds.

Fiscal Benefits. In terms of fiscal benefits, one of the Midtown Plan goals is to generate sufficient revenue to carry the costs associated with new uses. Redevelopment of Midtown holds the potential for major benefits, such as creating new neighborhoods in underutilized areas of the City, new employment uses, and stronger retail businesses. Residential development has been identified as a key land use in the area in order to enhance the social and economic vitality of the area, respond to local needs, and support the investment being made in transit systems. While residential development, in and of itself, does not produce significant direct net fiscal benefits, it has secondary benefits which are substantial. Improved economic activity (from people living and spending money in an area), providing a close-in employment base, and improving the image of an underutilized area, creates economic benefits to the community as a whole.

Appendix A:

Detailed Land Use Program Tables

Detailed Trip Generation Estimates